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METHOD FOR MANUFACTURING A FROZEN FRIED RICE

[Reito Yakimeshi Rui no Seizo Hoho]

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Japanese Patent

Ichita Kiyohara and one other Inventor No. 52-064439

water soak  
fry  
Steam (boil)  
cool & individ.  
oil  
freeze  
boil

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Ichita Kiyohara and one other

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Inventor : Ichita Kiyohara and one other

Applicant : Aikei Service Co., Ltd.

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## Specification

1. Title of the invention

Method for manufacturing a frozen fried rice

2. Patent Claim

1. A method for manufacturing a frozen fried rice characterized by the facts that oils & fats are added to a water-soaked and then water-drained rice, that said rice is fried, that the obtained fried rice is steamed and then cooled, that oils & fats are further added to the cooled rice, and that the obtained mixture is stirred and then frozen.

3. Detailed explanation of the invention

The present invention concerns a method for manufacturing a frozen fried rice. More specifically, it concerns a method for manufacturing a frozen fried rice obtained in an unclustered frozen state.

Fried rice dishes of the Chinese style (e.g., chao-fan, etc.) and fried rice dishes of the Western style (e.g., pilaf, dry curry, etc.) known in the prior art are generally cooked by a method wherein a steamed rice is fried with oils & fats (e.g., butter, margarine, bacon, lard, edible oil, etc.). According to such a cooking method, however, it is acknowledged by many that it is difficult to cook a large volume at one time, and in the cases of fried rice dishes, above all chao-fan, which is said to be cooked optimally by using cooled steamed rice, heated & fried rice grains become mutually adhered, and since the oil content cannot sufficiently penetrate the resulting cluster, a dish with a heterogeneous quality tends to become obtained. It may seem feasible to use a sufficient quantitative ratio of oils & fats for the purpose of eradicating this qualitative heterogeneity, but not only does such a cooking method unnecessarily consume extraneous oils & fats but the taste of the

<sup>1</sup>Numbers in the margin indicate pagination in the foreign text.

cooked fried rice becomes poor due to excessive greasiness, and in a case where the cooked fried rice is provided as a commercial product, its commercial value diminishes.

In a case where an uncooked rice is fried with oils & fats and then steamed, on the other hand, not only do the adsorption levels of oils & fats on the individual rice grains become irregular, but it also becomes impossible to obtain an unclustered frozen fried rice in a case where such rice grains are frozen. The present inventors compiled exhaustive researches for the purpose of solving these problems, as a result of which it was discovered that these problems can be solved by preliminarily cooling a rice batch obtained by frying raw rice grains with oils & fats and then steaming the same and by treating the same with oils & fats without recourse to further heating.

The present invention accordingly concerns a method for manufacturing a frozen fried rice, and said frozen fried rice is manufactured by adding oils & fats to a water-soaked and then water-<sup>1</sup>/<sub>2</sub> drained rice, by frying said rice, by steaming & then cooling the obtained fried rice, by further adding oils & fats to the cooled rice, and by stirring & freezing the obtained mixture.

More specifically, water is drained as thoroughly as possible from rice grains inclusive of an appropriate quantitative ratio of water upon the completion of water soaking, and the obtained rice grains are then fried with oils & fats, preferably solid oils & fats (e.g., lard, bacon, butter, margarine, etc.) in a heated & melted state, whereas the fried rice thus obtained is poured into and then steamed within a cold water or warm/hot water at an appropriate temperature. The steamed rice grains are then cooled, and after oils & fats, preferably liquid oils & fats such as a vegetable oil, etc., have been further added to the cooled rice, the obtained mixture is stirred at the temperature prevailing at the time of cooling. The rice thus treated yields a fried rice with a crunchy taste to begin with, and in a case where it is then frozen, and since said rice has bypassed a frying process

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whereby the mutual adhesion of the individual grains is likely, frozen rice grains which can be easily individualized can be obtained even in a case where the batch freezing method is used.

It is, after all, necessary, from the standpoint of obtaining such an unclustered frozen fried rice, to preliminarily cool a steamed rice and then to treat the same with oils & fats without recourse to heating, and it becomes possible to produce, *en masse*, a large volume of a fried rice with a homogeneous quality only in a case where the fried rice thus obtained is provided as a feed material and to realize the goal of mass-producing a fried rice, which has been impossible to realize by a general method of the prior art wherein rice grains are simply heated & fried with oils & fats.

The frozen fried rice can, in a case where it is vacuum-packaged into single-serving portions, be provided for school lunches, etc., for example, and it can be unfrozen by an arbitrary method (e.g., spontaneous thawing, thawing with a microwave oven or other heating means, etc.).

The fried rice thus heated and unfrozen tastes utterly the same as a fried rice obtained by heating & frying rice grains with oils & fats. Thus, the method of the present invention for manufacturing a frozen fried rice requires no gigantic facility such as a flow freezing mechanism, etc., and it becomes possible to manufacture a large volume the targeted fried rice as a homogeneous product on a single occasion based on relatively simple processes & apparatuses.

Next, the present invention will be explained with reference to an application example.

#### Application Example

Water is drained as thoroughly as possible from 5 kg of standard *Uruchi* rice grains which have been soaked within water overnight, and after a molten mixture of 225 g of butter and 300 g of margarine has been added to the water-drained rice grains, the obtained mixture is fried for approximately 15 min. in a well-stirred state. The fried rice thus obtained is loaded into a steam cooker filled with 6.5 kg of a hot water into which spices and various other seasonings have been solubilized, and subsequently, it is steamed. The steamed rice thus obtained is sufficiently stirred, spread on a freezing tray, and then cooled at approximately 10°C ~ 20°C with cold air. A vegetable becomes possible to manufacture a large volume the targeted fried rice as a homogeneous product on a single occasion based on relatively simple processes & apparatuses.

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oil which has been boiled once is added to the cooled rice at a ratio of approximately 1% with respect to the weight of the latter, and after the rice grain surfaces have become coated with said oil in a well-stirred state, the coated rice grains are spread on the freezing tray as a thin layer and then frozen at a temperature of approximately  $-20^{\circ}\text{C} \sim -40^{\circ}\text{C}$ . Even in a case where a portion which appears clustered exists among the frozen fried rice grains, unclustered rice grains can be obtained by gently loosening it with a hand.

Added to these fried rice grains, at respective ratios of approximately 10%, approximately 8%, and approximately 8% with respect to the rice grains, are green peppers, onions, and carrots which have separately been shredded finely, transmitted through a boiling water, dehydrated, sprayed with approximately 10% of an oil with respect to each of these ingredients, and then frozen. Boiled and then frozen peeled shrimp are then added, at a quantitative ratio of approximately 4%, to the rice grains to which said vegetables have been added, and after the obtained mixture has been vacuum-packaged into single serving portions, the packaged products are stocked within a freeze storage facility. Incidentally, in a case where a dry curry is cooked, curry may be added as one of the seasonings.

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Agent: Toshio Yoshida, patent attorney

5. Inventor(s) other than the aforementioned one(s)

Address: 575??-1950 Toshima, Kita-ku, Tokyo-to

Name: Takeshi Miyasaka

Boiled and then frozen peeled shrimp are then added, at a quantitative ratio of approximately 4%, to the rice grains to which said vegetables have been added, and after the obtained mixture has been vacuum-packaged into single serving portions, the packaged products are stocked within a freeze storage facility. Incidentally, in a case where a dry curry is cooked, curry may be added as one of the seasonings.